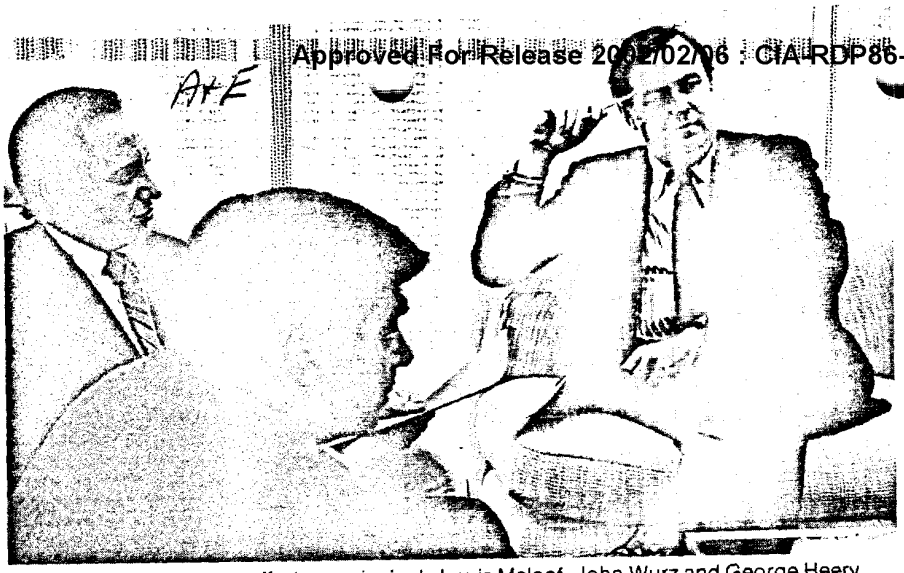

Heading up H&H's team effort are principals Louis Maloof, John Wurz and George Heery.

Heery & Heery blazes a path for construction management

A relatively young and rapidly growing Atlanta-based A-E firm, Heery & Heery, Inc. (H&H), is now embarked on two multimillion-dollar projects that its architect president George Heery considers among the most challenging the company has ever undertaken in systems use and construction management.

One, a $38-million Air Force industrial building systems program for 23 relocatable housing, school, warehouse and office building structures on 20 U.S. bases, stems from a Heery study for the Air Force that determined that systems manufacturers have the capacity to produce, within the same budget ceiling, buildings of greater quality and flexibility than under conventional methods.

Heery will provide professional services and management assistance to the Corps of Engineers, the project's program manager. Besides developing performance criteria that will permit varied uses of existing modular and panelized systems, H&H will set up construction schedules for each project.

And last month, the Greater Cincinnati Airport turned to Heery's expertise to reduce construction time for a major expansion. Selected as architect for the $28-million project, which includes 14 new gates, two new terminal buildings and the remodeling of the existing terminal facility, Heery expects to hold design and construction time to 129 weeks where previous comparable projects have taken from four to five years. Moreover, Heery says, each gate, with support and associate facilities, will cost about $1.2 million compared with at least $2 million for those conventionally constructed.

A better mousetrap. Contracts like these have not been heaven-sent. They are the culmination of integrating and coordinating various industry disciplines to the point where Heery's reputation for completing a job on or before scheduled occupancy and within the budget has become nationwide. Heery projects stretch north to New York City, west to Portland, Ore., and south to Florida.

Behind this lies the Heery philosophy, the philosophy of an architect who has capitalized on change not only shaped by new technology but by the weaknesses of traditional approaches and an owner's demand for economy.

"Our design and construction approach is aimed at meeting the needs of the construction client by embracing the best methodology the industry can offer," says Heery. "Its essence is the efficient delivery of relevant architecture."

This philosophy nurtured Heery's firm in 1970 to the biggest year of its 24-year history, capping a steady growth that began in the early 1960s when Heery committed his resources to developing construction management services using a systems approach whenever possible.

Business growth, which Heery pegs at $2.4 million in billings this year and expects will jump by another 30 to 40% in 1972, is an interdisciplinary staff that has increased from 90 in early 1971 to 142 today. It includes architects, structural, mechanical, electrical and civil engineers, landscape architects, estimators, and interior and graphic designers. And Heery expects to add another 40 to 50 persons to his staff during the next several months.

Sensing the future. Heery noticed in the early 1960s that industrial owners were turning increasingly to design-construct firms to handle projects. He decided that an A-E firm could provide similar services if it could develop broad capabilities in design and construction management services.

Now president of H&H, he has taken over the operating reins from his father, C. Wilmer Heery, who founded the firm in Athens, Ga., in 1945. The elder Heery, while still an active principal in H&H, concentrates his efforts on restoring some of the oldest homes in Athens. Backing up the younger Heery are John Wurz, senior vice president, and Louis N. Maloof, executive vice president.

A Georgia Tech graduate in architecture, 44-year-old George Heery is a former member of the Atlanta Civic Design Commission and served as chairman of the American Institute of Architects' industrial architecture committee. In this capacity, he led two U.S. delegations to international seminars on industrial architecture, in Brazil and Hungary.

Industrial architecture is a mainstay of H&H business whose clients include Xerox Corp., Delta Air Lines, Eaton Corp., Studebaker-Worthington Corp., Wagner Electric Corp., and Stouffer's. And the logical relationship of this type architecture to an owner's functional needs and budgetary constraints has led Heery to reject the concept of the architect as the fountainhead of design. Instead he favors an approach that makes all professional disciplines equal in their potential contribution to a project.

An unrivaled vantage point. "Design today must incorporate a group of disciplines working together under a single direction," says Heery. "The A-E firm is in the best position to control costs. Unlike the contractor who must buy according to specifications, the A-E controls design, which ultimately

determines the long-range benefit [illegible] a building and, in the short run, has a major impact on time and cost control."

Time/cost control, now a promotional pitch for H&H, is a concept that has put Heery's firm among the country's top sports stadium designers. With the Atlanta Braves baseball team knocking at the door in the mid-60s, H&H, in a joint venture with another Atlanta firm, Finch, Alexander, Barnes, Rothschild & Paschal, designed and had completed in 51 weeks the Atlanta Stadium.

This task, in terms of time and cost per seat with comparable stadiums, is hard to match, says Heery. Soon after the Atlanta feat, the Finch-Heery combine, which continues as a separate specialty group after eight years, undertook Cincinnati's Riverfront Stadium and has since worked on stadiums for the University of South Carolina, the New England Patriots' football team and the city of Buffalo.

With these credentials, it was selected last spring with Giffels & Associates, Detroit, and Edward Durell Stone & Associates, New York City, to design the $126-million Wayne County domed stadium in Detroit.

This reputation in sports construction, as well as industrial and institutional work, particularly school construction programs, is geared to a complete package of design and management services that accounts for 90% of H&H business. This includes:

- Predesign project analysis to evolve a basic design concept, identify constraints, and develop budget and cost reduction goals.
- A systems approach to design, where possible, to maximize offsite fabrication.
- Continuous in-house estimating and sequencing analysis to develop a firm budget no later than the schematic phase of work.
- Use of CPM as a contractor tool for scheduling and an owner tool for monitoring progress on the job.
- Time control contract provisions tailored to completing a job on schedule, but with enough flexibility to permit the owner to make necessary changes.
- Prebid conferences to familiarize general contractors, subs and suppliers with details on scheduling and specifications prior to bidding.
- Full project administration to ensure continuity of project direction from predesign phases through completion.

"We are part of the industry's evolution."

For these services, Heery usually gets a flat fee, and before or during the design phase provides the owner with an upset price within which he is contractually obligated to deliver the project. The contract usually includes a 3% contingency provision to take care of in progress changes, and if the project's final cost is less than the guaranteed price plus the contingency, Heery gets a percentage of the savings.

Banking on systems. For a firm that stakes its reputation on completing jobs on schedule and at a set price, competitively available systems have been a bonus. "We are part of the industry's evolution, and besides the obvious cost-savings of offsite fabrication, systems permits us to pursue an orderliness of design that while repetitive, need not be redundant and full," says Heery.

The first H&H use of systems hardware was in 1965, when it drew upon the then newly developed School Construction Systems Development components for schools to build a Lockheed Aircraft Corp. engineering office in Georgia. Since then H&H, which makes systems use a priority in every project's initial analysis, has used off-the-shelf, pre-engineered components for many of its industrial and school projects. And when not available, H&H has developed its own system performance standards, as it did for precast concrete module components for 15 recreational and swimming pool complexes for New York City.

Turning industry changes, whether in systems hardware or management practices, into a more effective design and construction service, is the H&H game plan, and so far it looks like the only way is up.

Some Heery observations on construction management

Catalysts of change—"These include emergence of new, competitively available building systems; the absence of proper risk acceptance in many construction contracts; designs by many architects that are irrelevant to the needs of society, and to the functional needs of the user, irrelevancies that are born of often archaic methods and materials; and overlaying all, a mountainous backlog of needs for housing, schools, hospitals, etc."

Phased construction—"Its most productive use relates to the early identification of constraints, early bidding and award of work in areas of constraint, and subsequent transfer of early phase contracts into a single responsibility contract. . . . Often it's proposed without real need and to justify a separate CM fee."

Government interest—"The motivating force is frustrations government officials have experienced with the traditional single responsibility construction contract which has resulted too seldom in on-time delivery and too often in soaring change order costs. With this situation, it's hard to blame government agencies for moving away from the traditional general contract. Today the contractor must accept the risk of delivery within time and cost limitations, as well as job coordination, or else he has no significant role."

The A-E as a CM—"An architectural and engineering firm, properly staffed and capable in construction management, is clearly the owner/user's best option because of the programming-design-construction interrelationship."

Cost control—"Cost control is best implemented by someone who takes on risk and responsibility and who has a continuing interest in the project. Not infrequently, journeymen cost consultants deal the building design a devastating blow and leave [illegible] of the picture with no continuing responsibility or liability."